APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,872	03/30/2004	Steven D. Cheng	ACMP0185USA	2871

			EXAMINER
27765	7590	04/07/2006	MEHRPOUR, NAGHMEH

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ART UNIT	PAPER NUMBER
2617	

DATE MAILED: 04/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *15 November 2005*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2.   **Claims 1-17,** are rejected under 35 U.S.C. 102(e) as being anticipated Shioda et

al. (US publication 2002/0183071).

Regarding claims 1, 10, Shioda teaches a method of using power measurements from

base stations to calculate position of a mobile station, the method comprising;

providing position coordinates for a plurality of base stations in a mobile phone network

(0052), measuring Received Signal Strength levels of nearby base stations with a

identifying three base stations that efficient above a predetermined threshold level for

which Indicator (RSSI) level mobile station (0053, 0079-0082);

identifying three base stations that have a reliability coefficient above a predetermined

threshold level foe which the mobile station measures wherein the mobile station

strongest RSSI levels, wherein each base station has the corresponding reliable

interference effects associated with base station (0082-0083);

the mobile station receiving the position coordinates of the three identified base

stations,

calculating a curved path of possible positions of the mobile station for each of the three

identified base stations according to the measured RSSI the three identified base

stations; and levels of each of calculating the position of the mobile station based on the

position coordinates of the three identified base stations and the three curved paths of

possible positions of the mobile station (0079);

wherein when the mobile station is less than a predetermined distance away .

from a nearby base station in the mobile phone network, the position of mobile station is

set to be equal to the position of the nearby base station (0181-0183).

Regarding claims 2, 11, Shioda teaches a method of claim 1 wherein calculating the

curved path of possible positions of the mobile station for each of the three identified

base stations is performed according to the relationship RSSI cc a wherein RSSI stands

base station, and the for a measured RSSI value for an id stands for a distance

between the mobile station and the i base station (0084).

Regarding claims 3, 12, Shioda teaches a method of claim 1 wherein when calculating

the curved path of possible positions of the mobile station for each of the three identified

base stations, a known interference coefficient for each base station is utilized to

calculate an inner curve and an outer curve corresponding to that base station, the inner

curve and the outer curve defining an individual area that the mobile station is predicted to be in (0053).

Regarding claims 4, 13, Shioda teaches a method of claim 3 wherein a merged area that the mobile station is predicted to be in on a union of the individual areas identified base stations, the merged area comprising possible calculated based from each of the three positions in which all of the individual areas overlap (0053).

Regarding claims 5, 14, Shioda teaches a method of claim 3 wherein the known interference coefficients for each of the three identified base stations comprise a mean interference value and a corresponding standard deviation value that are used to calculate the inner curve and the outer curve corresponding to the same base station (0229).

Regarding claim 6, Shioda teaches a method of claim 1 wherein each base station has a corresponding reliability coefficient due to interference effects associated with that base station, and when identifying the three base stations for which the mobile station levels, base stations measures the strongest RSSI which have a reliability coefficient below a predetermined threshold level are not selected to be one of the three base stations that the mobile station identifies as having the strongest RSSI levels (0081-0083, 0091).

Regarding claims 7, 15, Shioda teaches a method of claim 1 wherein the mobile station receiving the position coordinates of the three identified base stations is realized by the three identified base stations transmitting their respective position coordinates to the mobile station (0125).

Regarding claims 8, 16, Shioda teaches a method of claim 1 wherein the mobile station receiving the position coordinates of the three identified base stations is realized by the mobile station reading the positions coordinates of the three identified base stations from a lookup table (0115, 0121-126, 0134).

Regarding claims 9, 17, Shioda teaches a method of claim 1 wherein when the mobile station is less than a predetermined distance away from a nearby base station in the mobile position of the mobile station is phone network, the set to be equal to the position of the nearby base station (0127-0131).

Response to Arguments

3.   Applicant's arguments filed 11/15/05 have been fully considered but they are not persuasive.

In response to the applicant's argument that "*Shioda does not teach that the position of the mobile station is set to be equal to the position of the base station when the mobile is less than a predetermined distance away from the base station*", the examiner that Shioda teaches covariance matrix the respective terms oxx, oxy, ayx, oyy constituting the matrix (17) indicate a variance which has the nature of a weighting

coefficient that adversely affects the positioning accuracy, between the base stations

A, B, C and the positioning apparatus 10. Therefore, when the terms .sigma.xx,

.sigma.xy, .sigma.yx, .sigma.yy have small values, this means that a resulting rough

position POSI exhibits a small positioning error and a high positioning accuracy. Thus,

as shown in the following equation, the value HDOP (Honzontal Dilution Of Precision)

of a square root of square sum of the terms .sigma.xx, .sigma.yy is calculated, and this

value HDOP is determined as a value indicative of a quantified positioning error on a

horizontal coordinate plane. 5 HDOP = 2 xx + 2 yy (18) (0170), the positioning data

DPs indicative of the current position (xp,yp) of the positioning apparatus 10, which is

the positioning result, is transmitted to a nearby base station to which a request is

made for delivering the navi information instructed by the user. For example, when the

user requests information on a map of surroundings including the current position

(xp, yp) as the navi information, the nearby base station is requested to deliver map

information. It is also possible to request the base station to deliver a variety of navi

information such as information required for shopping such as restaurants, shops and

so on located around the current position (xp, yp), amusement facilities, public

facilities, sight-seeing spots, and the like (0181).

The navi information, is transmitted from the base station, the receiver section 11rx

receives the delivered radio wave, and acquires the navi information from received

data Drx. Then, the receiver section 11rx displays the acquired navi information, and

the current position (xp, yp), which is the positioning result, on the display part 16 for

provision to the user (0182). For example, as illustrated in FIG. 22A, the map

information delivered thereto is displayed on the display part 16, and a symbol "P"

indicative of the current position (xp, yp) is blinked in the map, thereby improving the

convenience of the user. Also, when the value of the positioning error HDOP, which

was calculated when determining the current position (xp, yp), corresponding to the

current position is larger than a predetermined value, the positioning error HDOP is

converted to a distance, and as illustrated in FIG. 22B, a circle Cerr centered at the

current position (xp, yp) and having a radius equal to the distance converted from the

positioning error HDOP is displayed. In this manner, it is also possible to allow the

user to recognize to which degree the current position (xp, yp) is correct (0183).

Conclusion

4.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5.   **Any responses to this action should be mailed to:**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Naghmeh Mehrpour whose telephone number is 571-272-7913. The examiner can normally be reached on 8:00- 6:00.
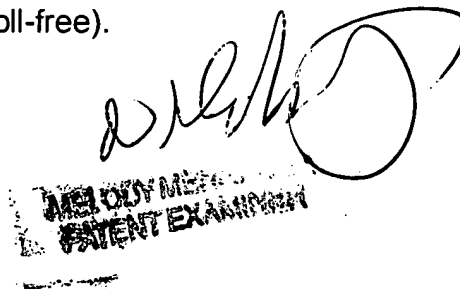
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold be reached (571) 272-7905.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NM

March 31, 2006